

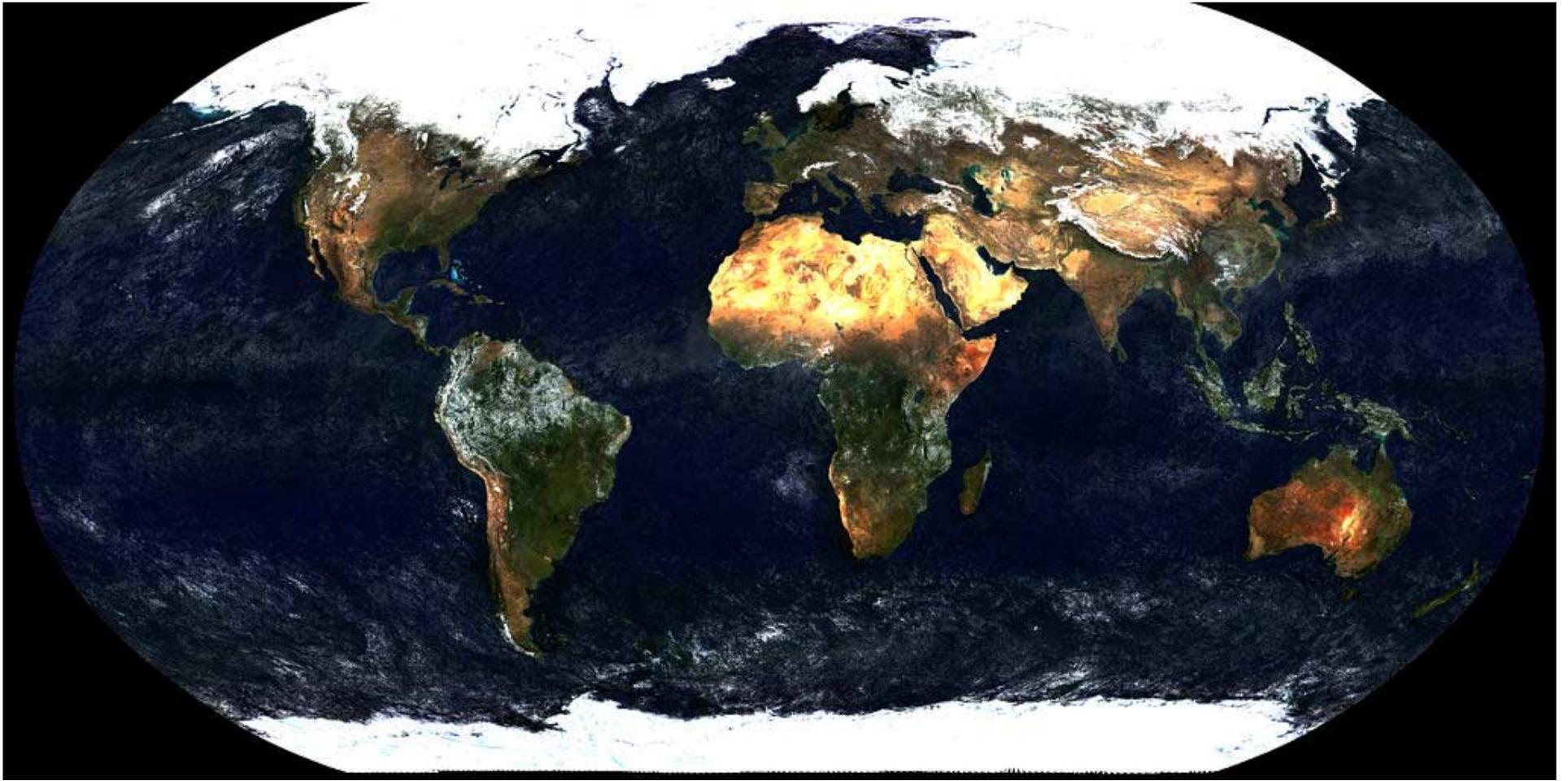
# MODIS Surface reflectance product early results

E. Vermote

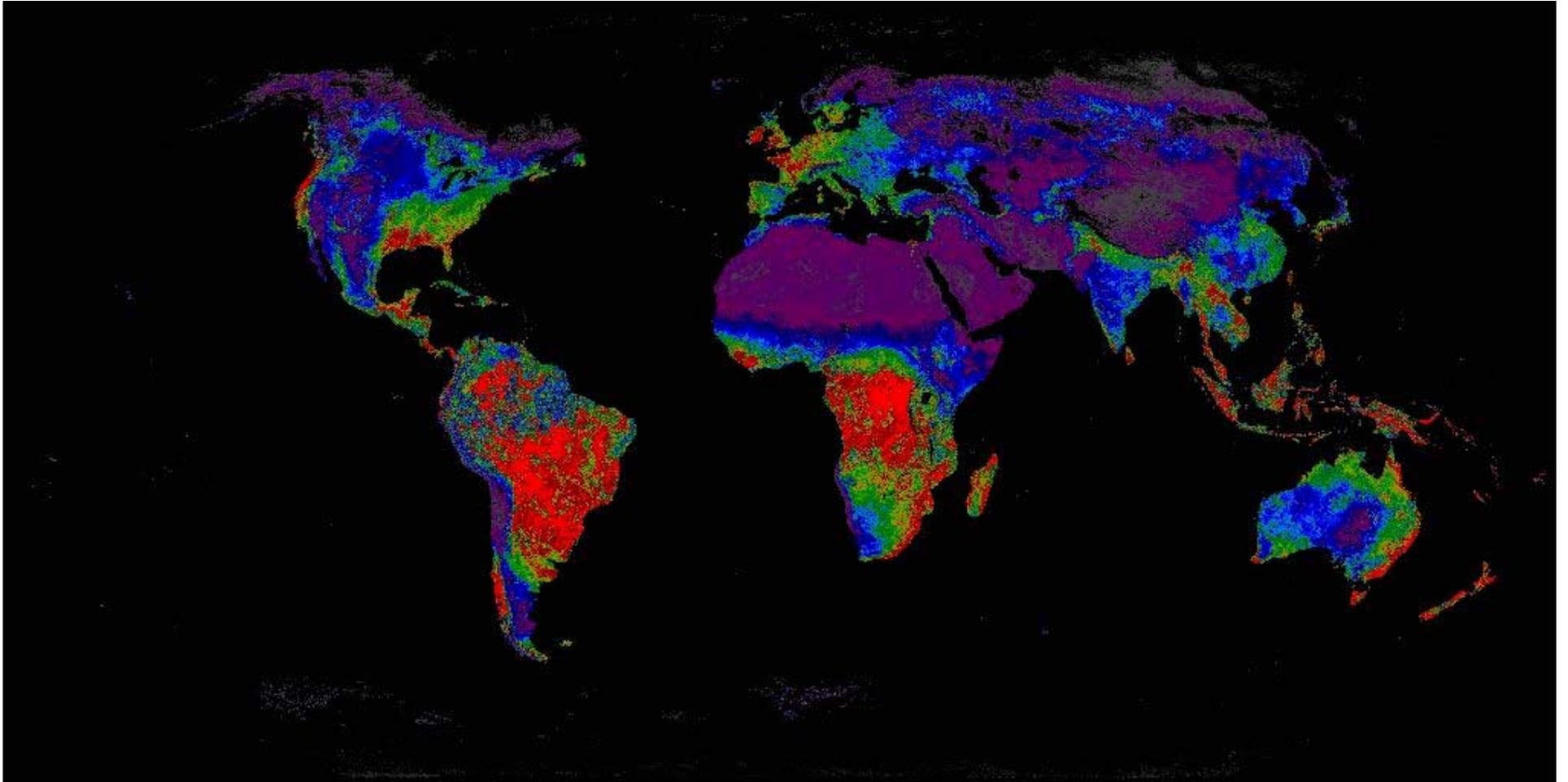
## **MODIS Surface Reflectance Product early results**

- 1) MODIS surface reflectance composite, NDVI, EVI
- 2) MODIS, AVHRR data comparison
- 3) MODIS land aerosol correction results
- 4) MODIS middle infrared surface reflectance prototype (F. Petitcolin)
- 5) MODIS electronic Xtalk evaluation for at launch and operational Itweak/Vdet configuration, band 5,6,7 surface reflectance implications

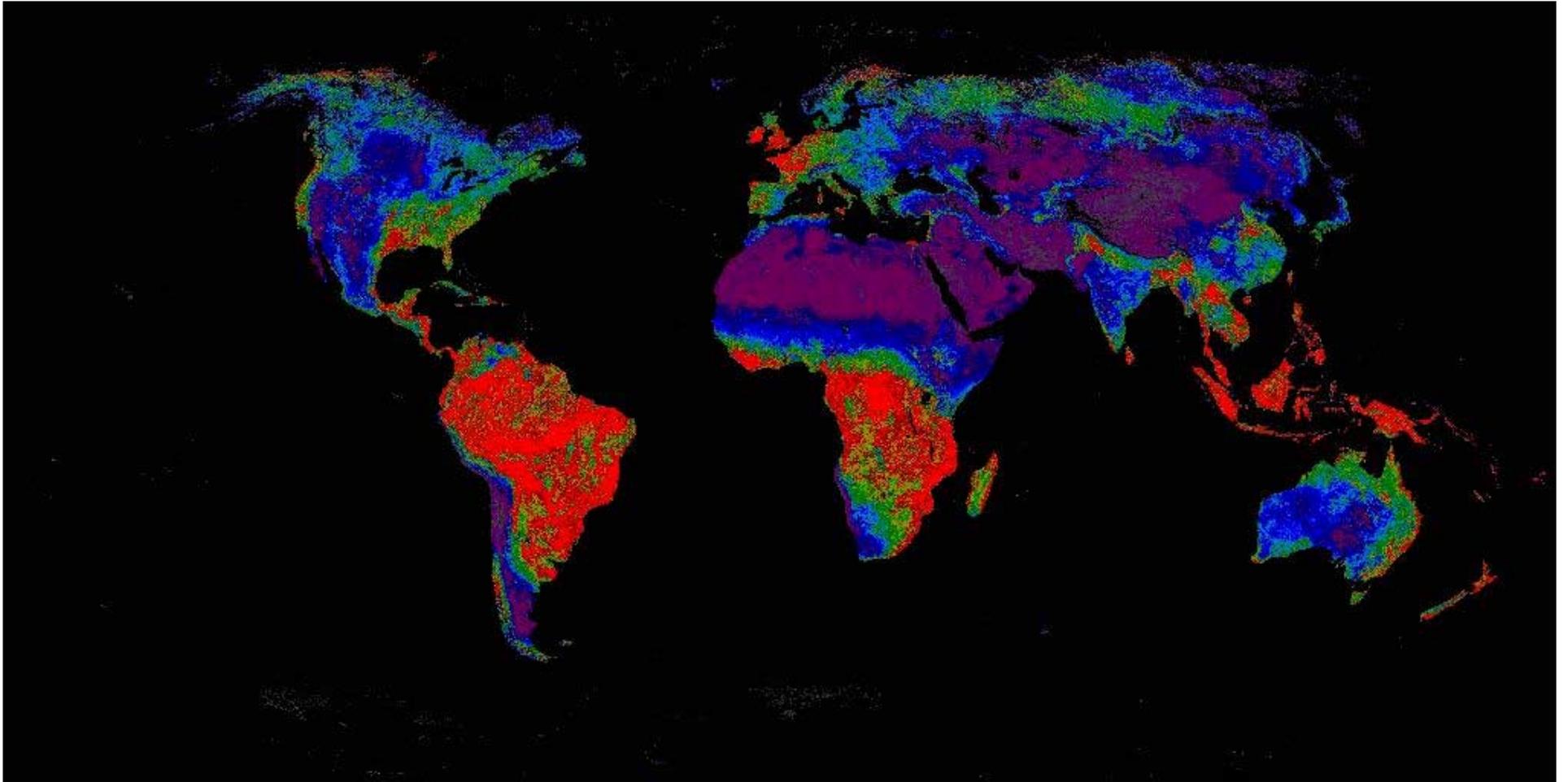
**MODIS Surface Reflectance composite (Minimum band 3)  
March 17,2000 to April,10,2000  
Red=Band1(670nm),Green=Band4(555nm),Blue=Band3 (470nm)**



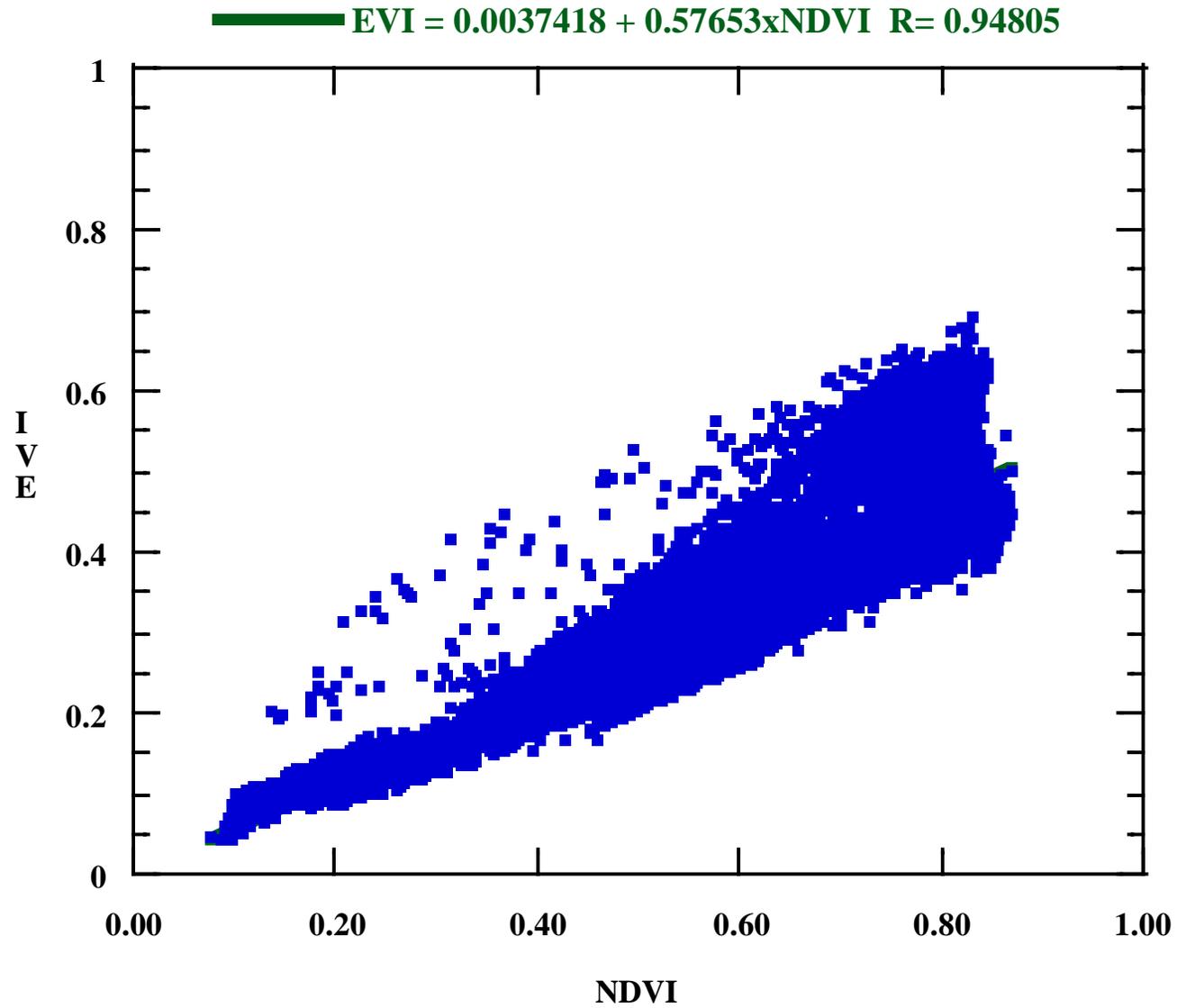
**MODIS Surface Reflectance composite (Minimum band 3)  
March 17,2000 to April,10,2000  
Normalized Vegetation Index (NDVI)**



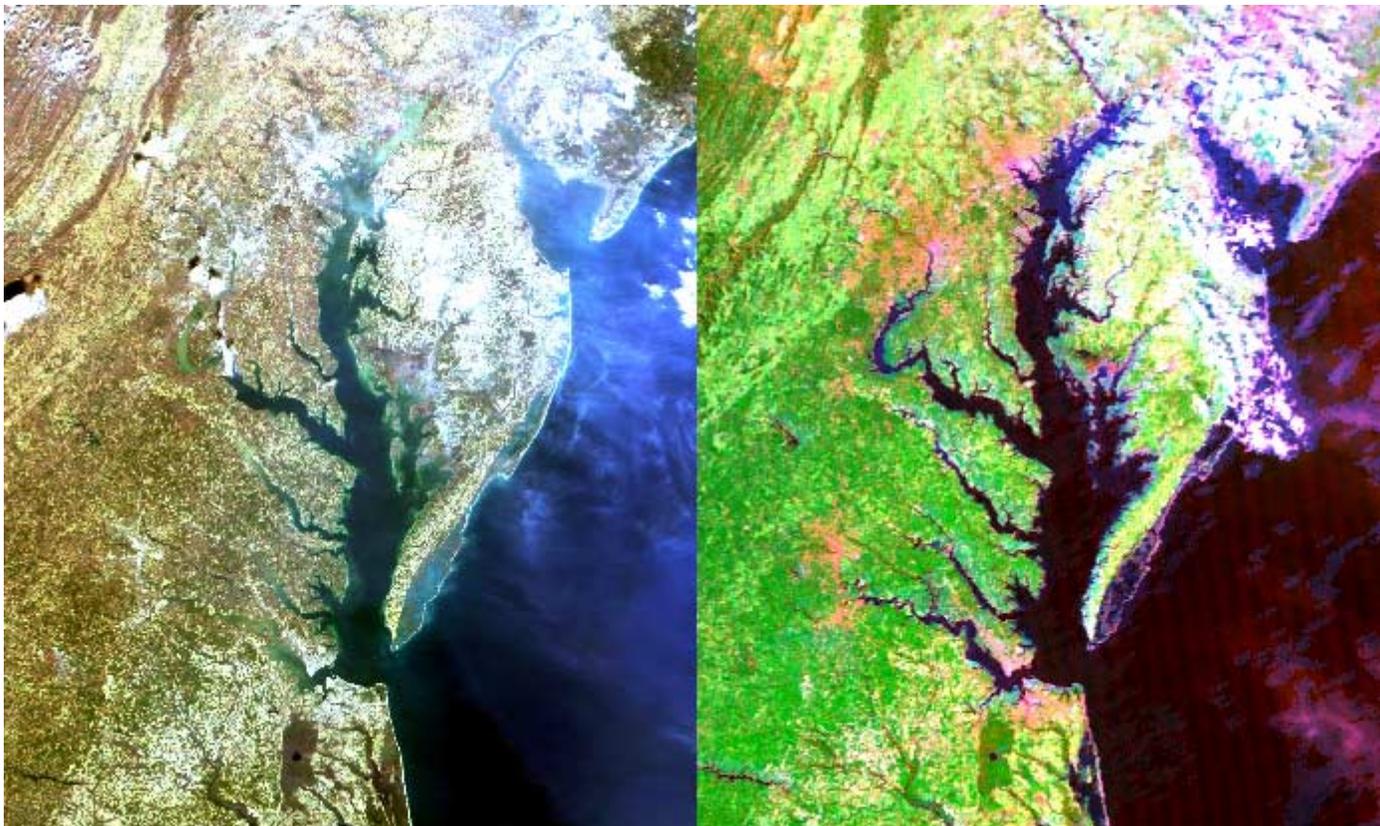
**MODIS Surface Reflectance composite (Minimum band 3)  
March 17,2000 to April,10,2000  
Enhanced Vegetation Index (EVI)**



EVI vs NDVI over Africa (16.25N,18.31E;-4.84S,27.91E)



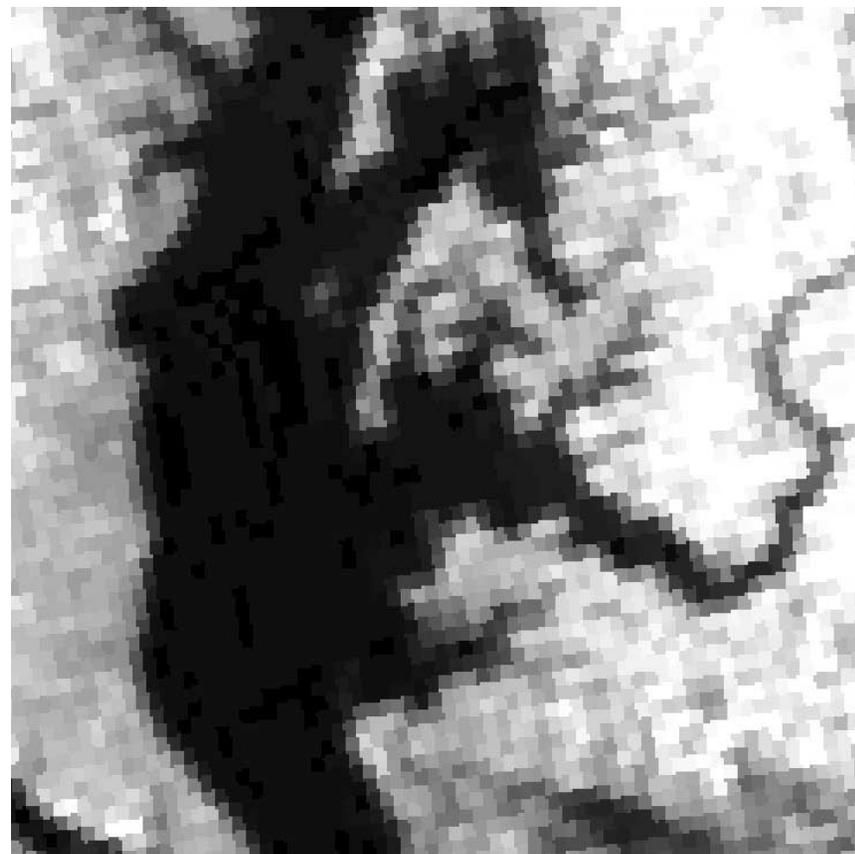
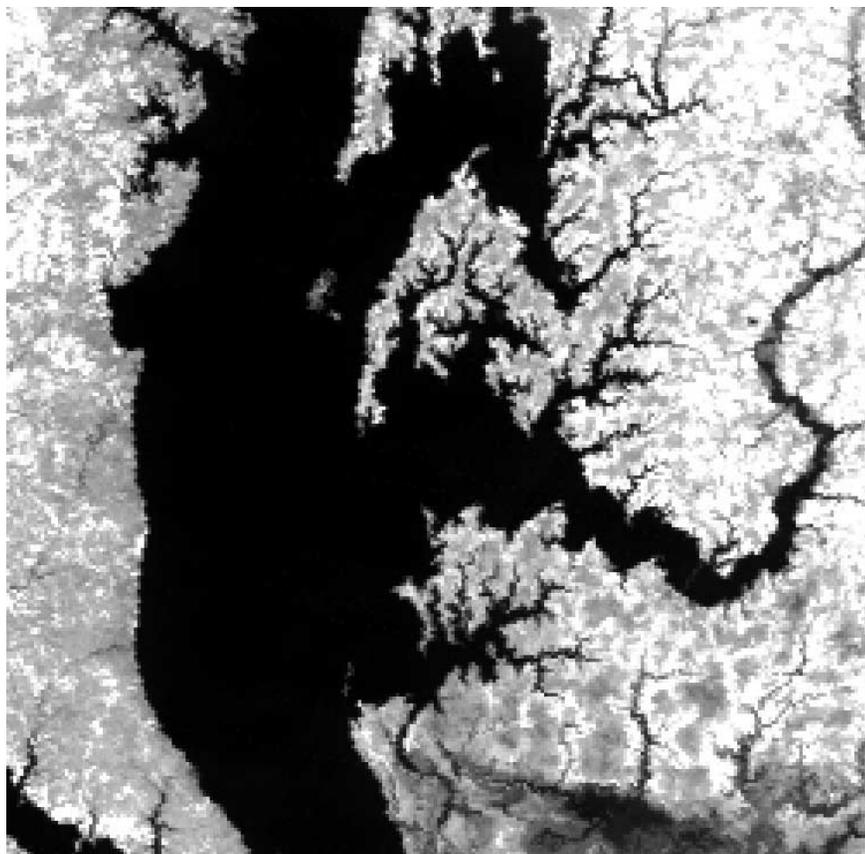
Comparison of MODIS 250m data (left side) with AVHRR (right side)  
1km over the Chesapeake Bay



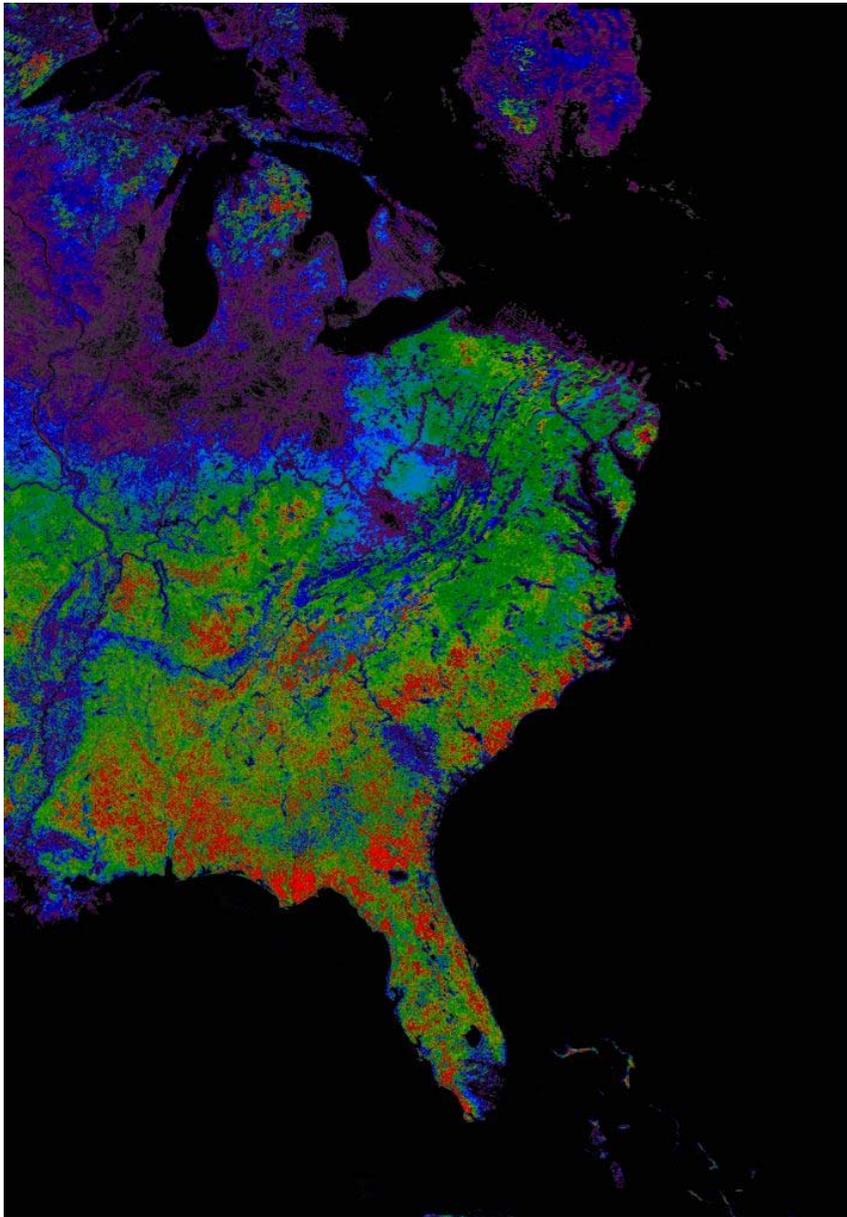
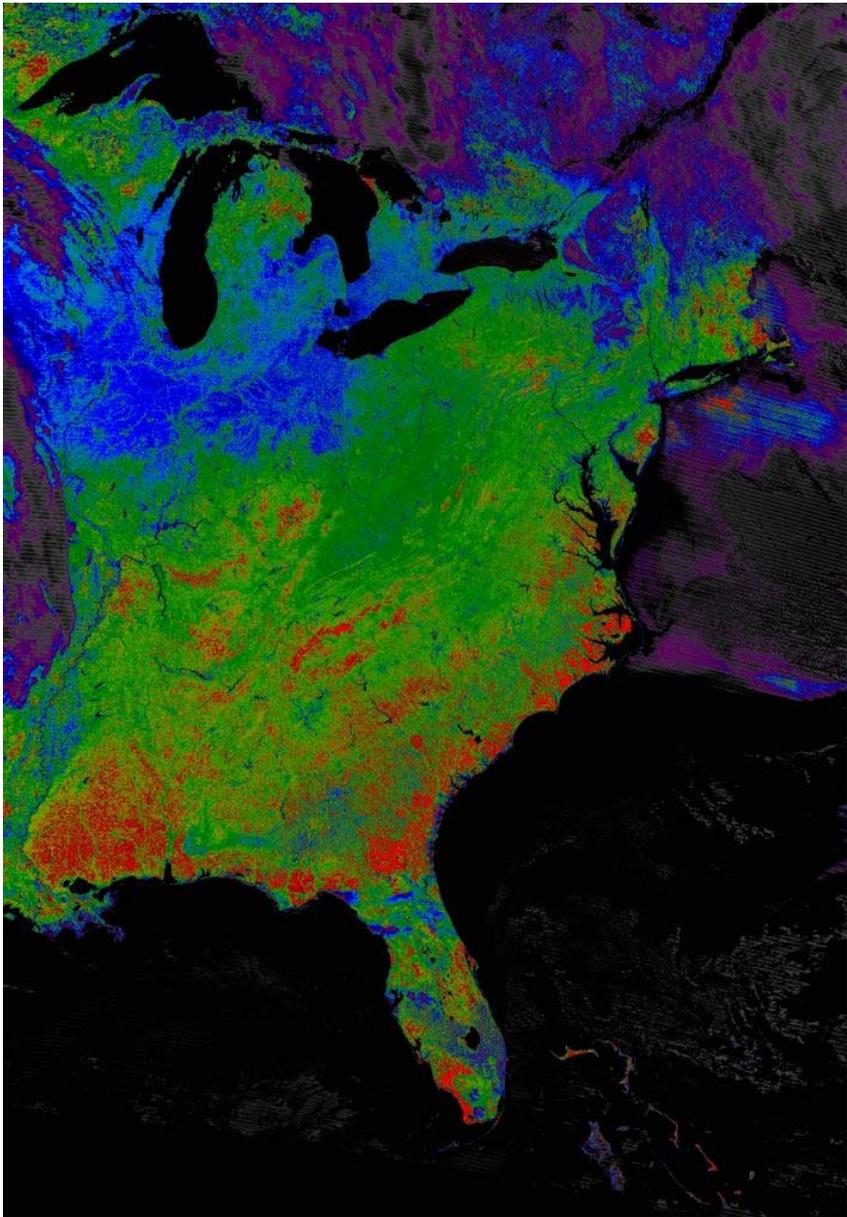
MODIS RGB  
R=670nm,G=555nm,B=470nm

AVHRR RGB  
R=3750nm,G=870nm,B=670nm

Comparison of MODIS 250m data (left side) with AVHRR (right side) enlarged details from the previous scene in the near-infrared bands.

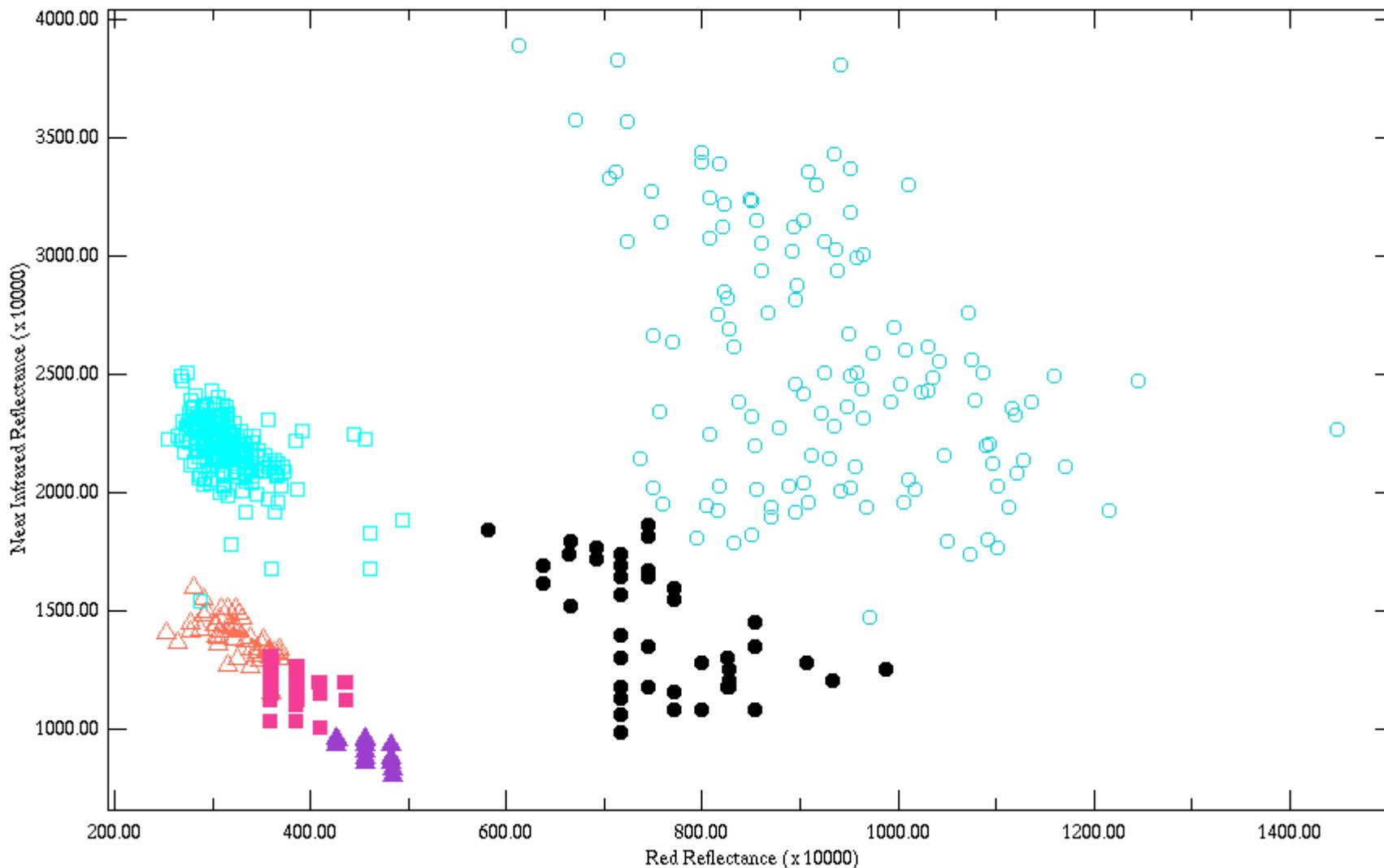


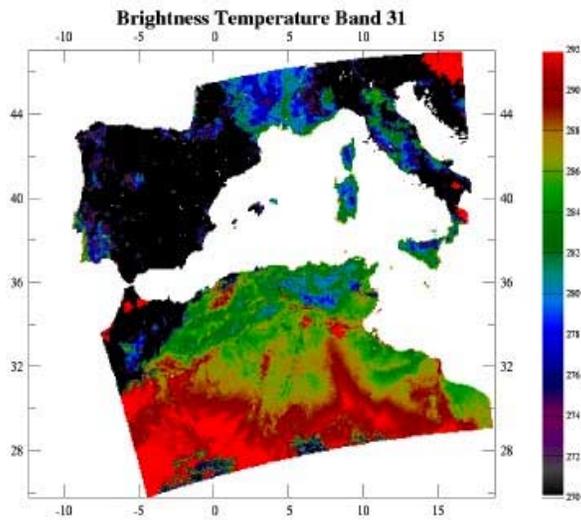
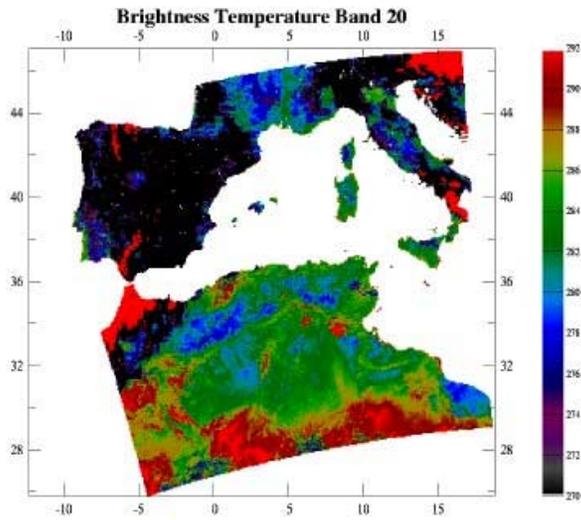
**Comparison of the MODIS (left) and AVHRR (right) NDVI over the Eastern United States, color scales are adjusted to match respective dynamic range.**



# Comparison of MODIS and AVHRR red/near infrared reflectance for selected target over Eastern United States

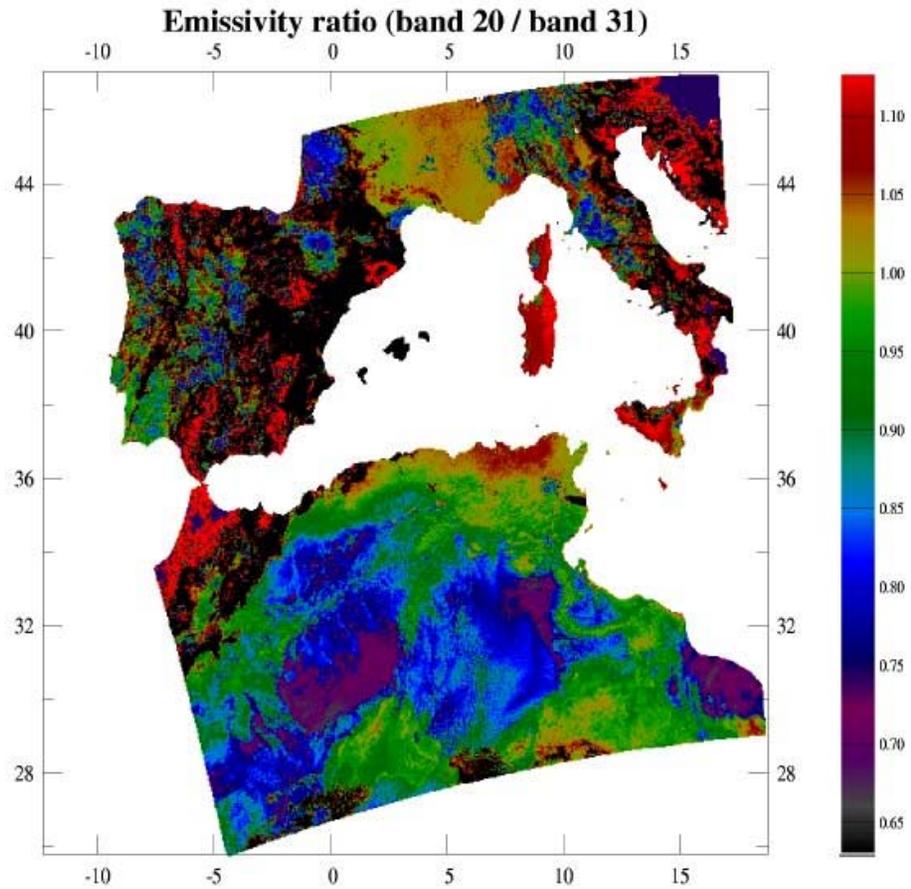
Needleleaf (square), Broadleaf (Triangle), Croplands (circle) MODIS (open), AVHRR (filled)





# NIGHT IMAGE: emissivity ratio

(year:2000 day:120 GMT time:22.00)



# Surface Reflectance in Middle Infrared

(granules: 2000 121 10:00, 2000 121 10:05 and 2000 121 11:40)

